



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,011	03/12/2001	Peter Charnock	687-93	1278

23117 7590 09/18/2003  
NIXON & VANDERHYE, PC  
1100 N GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 22201-4714

[REDACTED] EXAMINER

TESKIN, FRED M

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

1713

DATE MAILED: 09/18/2003

*S*

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/787,011</b>	Applicant(s) <b>Charnock, et al.</b>
	Examiner <b>Fred Teskin</b>	Art Unit <b>1713</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1)  Responsive to communication(s) filed on \_\_\_\_\_  
 2a)  This action is FINAL.      2b)  This action is non-final.

- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 69-105 is/are pending in the application.  
 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5)  Claim(s) \_\_\_\_\_ is/are allowed.  
 6)  Claim(s) 69-105 is/are rejected.  
 7)  Claim(s) \_\_\_\_\_ is/are objected to.  
 8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.  
 10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.  
 12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

- a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

- a)  The translation of the foreign language provisional application has been received.

- 15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>5</u> | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit 1713

1. The preliminary amendments of March 12 and July 13, 2001 have been entered in full. Accordingly, claims 69-105 are currently pending and under examination.
2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 371, which papers have been placed of record in the file.
3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
4. Claims 69-105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the following grounds for indefiniteness apply to the indicated claims.
  - (A) Claims 69-71, 97 and 105 are of improper form due to omission of a period at the end of each claim.
  - (B) Claim 70 is confusing and incomplete in defining Ar as "selected from ... the following moieties (i) to (x) ...," where none of said moieties appear anywhere in the balance of the claim (see claim 70, final six lines).

Art Unit 1713

(C) Claim 94 improperly attempts to incorporate subject matter from a cancelled claim, i.e., the definitions of Ar, m, w, r, s, z, t, v, G, E and E' from claim 1 (see claim 94, final subparagraph). Appropriate correction, as by rewriting claim 94 to include the definitions currently recited in claim 1 and deleting the reference to that cancelled claim, is required.

(D) Claim 97 is incomplete, hence indefinite, due to lack of definition for the variables A, B, C and D, appearing in formulae IV and V.

5. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Sluma et al and Ishii et al are cited to show analogous art relating to, respectively, sulfonation of polyether sulfones and membranes prepared from the sulfonated products; and semipermeable polymeric membranes comprising modified poly(arylether-sulfone).

6. Claims 69-105 would be allowable if amended or rewritten to overcome the rejection under 35 U.S.C. § 112 set forth in this Office action. Examiner has not, as of the date of this Office action, located or identified any prior art document(s) that can be used to render the claimed device, the claimed copolymer, or the

Art Unit 1713

claimed polymer electrolyte membrane anticipated or obvious to one of ordinary skill in the relevant art.

7. Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (703) 308-2456.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (703) 308-2450. The appropriate fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 (non-after finals) and (703) 872-9311 (after-finals).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

  
FRED TESKIN  
PRIMARY EXAMINER  
1713

FMTeskin/09-15-03